

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appellant : John F. Malitzis                          Art Unit : 3693  
Serial No. : 10/040,912                              Examiner : Sara M. Chandler  
Filed : January 7, 2002                                Conf. No. : 3822  
Title : AUTOMATED MARKET SYSTEM WITH SELECTABLE MATCH-OFF OF  
          ORDER FLOW

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BRIEF ON APPEAL

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(1) Real Party in Interest

The real party in interest is The NASDAQ OMX Group, Inc.

(2) Related Appeals and Interferences

The Appellant is not aware of any appeals or interferences related to the above-identified patent application.

(3) Status of Claims

This is an appeal from the decision of the Examiner in a Final Office Action dated October 31, 2007. Claims 1-14 and 17-19 are pending in the application. All pending claims were rejected.

Claims 1-14 and 17-19 are the subject of this appeal.

(4) Status of Amendments

Appellant filed a Reply to the Final Office Action of October 31, 2007, amending claims 1, 2, 8, 12 and 13. The amendments from the Reply to the Final Office Action have been entered. Appellant filed a Notice of Appeal on January 29, 2008. Appellant received a Notice of Abandonment on June 6, 2008. Appellant's Petition to Revive was granted on August 15, 2008.

(5) Summary of Claimed Subject Matter

Claim 1

One aspect of Appellant's invention is set out in claim 1 as a computer implemented method of processing an order in an electronic-based trading system. “[An] electronic market 10 includes client systems 12 that access a central quote/order collector facility 20.”<sup>1</sup> “The client systems 12 include a processor, memory and a storage device, e.g., a client workstation

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<sup>1</sup> Specification, Page 3, Lines 18-20

or personal computer (all not shown) that can include a client process to enter quotes/orders into the electronic market system 10.”<sup>2</sup>

Inventive features of claim 1 include receiving an order to buy or sell a product, the order having a market participant identification. “...MMA sends system 20 all of its quotes/orders...”<sup>3</sup> “[Process] 25 will examine 67a the identification of the order...”<sup>4</sup>

Inventive features of claim 1 also include, for the order, checking the order in a computer to determine if a market participant has qualified the order for avoidance of an internalization execution for the order in the electronic-based trading system, where internalization execution corresponds to execution of an order if the market participant identification associated the order matches a market participant identification representing a quote in the system that is at the best bid or best offer price in the system regardless of the priority of that quote in the system. “The order execution/routing manager 26d receives 82 an order and examines 84 the value of field 17i (FIG. 1B) of the order to check if the market participant had specified the anti-internalization qualifier property for the order”<sup>5</sup> “[...]nternalize execution manager 26c matches-off a participant’s agency or proprietary orders against that participant’s quotes/order before the order is sent for time/price priority execution in the quote/order collector facility 20. For example, if MMA sends system 20 all of its quotes/orders and is at the best bid of \$20 showing 4,000 shares (attributable and non-attributable), and the MMA sends OCF 25 a 1,000 share market sell order from one its customers, [process] 25 will examine 67a the identification of the order and if it matches the identification of the market participant who is at the best bid or offer for that security, the [process] 25 will execute 67b the order against the participant’s own quote, thus matching off the order on behalf of the participant.”<sup>6</sup>

Inventive features of claim 1 further include satisfying the order according to whether or not the market participant has qualified the order for avoidance of internalization execution. “If the anti-internalization qualifier property is set the order execution manager will by-pass

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<sup>2</sup> Id., Page 3, Lines 25-28

<sup>3</sup> Id., Page 11, Line 27

<sup>4</sup> Id., Page 11, Line 30 – Page 12, Line 1

<sup>5</sup> Id., Page 12, Lines 26-29

<sup>6</sup> Id., Page 11, Line 23 – Page 12, Line 5

calling the internalize execution manager 26c and instead will execute the order according to a specified priority, if any. If the anti-internalization qualifier property is not set the order execution manager will call 86 the internalize execution manager 26c.”<sup>7</sup>

Claim 7

Another aspect of Appellant’s invention is set out in claim 7 as a networked computer system for providing an electronic-based market system. “[A]n electronic market 10 is shown. The electronic market 10 includes client systems 12 that access a central quote/order collector facility 20. The quote/order collector facility 20 includes one or preferably a plurality of server computers generally denoted as 22 including a processor 22a, main memory 22b and storage 22c.

Inventive features of claim 7 include one or more networked computers to receive orders and match orders against quotes posted in the system on a time priority basis. “The order collector process 25 also includes an internal execution process manager 26c to match off executions for quoting market participants at the best bid/offer.”<sup>8</sup> “[I]nternalize execution manager 26c matches-off a participant’s agency or proprietary orders against that participant’s quotes/order before the order is sent for time/price priority execution in the quote/order collector facility 20.”<sup>9</sup>

Inventive features of claim 7 also include one or more networked computers to check if a market participant identification associated with a received order matches a market participant identification representing a quote in the system that is at the best bid or best offer price in the system. “The order collector process 25 also includes an internal execution process manager 26c to match off executions for quoting market participants at the best bid/offer.”<sup>10</sup>

Inventive features of claim 7 further include one or more networked computers to check if the market participant has qualified the order for avoidance of the internalization execution for the order in the market system where internalization execution corresponds to execution of an order where the market participant identification associated the order matches a market

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<sup>7</sup> Id., Page 12, Line 29 – Page 13, Line 5

<sup>8</sup> Id., Page 7, Lines 23-25

<sup>9</sup> Id., Page 11, Lines 23-26

<sup>10</sup> Id., Page 7, Lines 23-25

participant identification representing a quote in the system that is at the best bid or best offer price in the system regardless of the priority of that quote in the system. “The order execution/routing manager 26d receives 82 an order and examines 84 the value of field 17i (FIG. 1B) of the order to check if the market participant had specified the anti-internalization qualifier property for the order.”<sup>11</sup> “[I]nternalize execution manager 26c matches-off a participant’s agency or proprietary orders against that participant’s quotes...For example, if MMA sends system 20 all of its quotes/orders and is at the best bid of \$20 showing 4,000 shares (attributable and non-attributable), and the MMA sends OCF 25 a 1,000 share market sell order from one its customers, [process] 25 will examine 67a the identification of the order and if it matches the identification of the market participant who is at the best bid or offer for that security, the [process] 25 will execute 67b the order against the participant’s own quote, thus matching off the order on behalf of the participant.”<sup>12</sup>

Inventive features of claim 7 still further include one or more networked computers to match the order with quotes in the system according to whether the order is qualified for avoidance of the internalization execution. “If the anti-internalization qualifier property is set the order execution manager will by-pass calling the internalize execution manager 26c and instead will execute the order according to a specified priority, if any. If the anti-internalization qualifier property is not set the order execution manager will call 86 the internalize execution manager 26c.”<sup>13</sup>

### Claim 12

A further aspect of Appellant’s invention is set out in claim 12 as a computer program product residing on a computer readable medium for operating an electronic based trading system. “[An] electronic market 10 includes client systems 12 that access a central quote/order collector facility 20.”<sup>14</sup> “The client systems 12 include a processor, memory and a

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<sup>11</sup> Id., Page 12, Lines 26-29

<sup>12</sup> Id., Page 11, Line 23 – Page 12, Line 5

<sup>13</sup> Id., Page 12, Line 29 – Page 13, Line 5

<sup>14</sup> Specification, Page 3, Lines 18-20

storage device...”<sup>15</sup> “The storage system 22c includes quote/order collector process 25 that is executed in memory 22b.”<sup>16</sup>

Inventive features of claim 12 include instructions for causing a computer to receive an order from a market participant’s customer. “A broker/dealer can receive an order from a customer. The broker/dealer can send that order to the order collector facility 20 to be executed with quotes that are posted by electronic communication networks, market makers or other markets... [A]n entry screen 17 for non-directed order entry is shown. The screen 17 allows a participant to enter non-directed orders and would generally include fields 17a-17e for entering information including price, amount, and also three type fields.”<sup>17</sup>

Inventive features of claim 12 also include instructions for causing a computer to, for the order, check if a market participant has qualified the order for avoidance of an internalization execution in the electronic based trading system where internalization execution corresponds to execution of an order if the market participant identification associated the order matches a market participant identification representing a quote in the system that is at the best bid or best offer price in the system regardless of the priority of that quote in the system ““The order execution/routing manager 26d receives 82 an order and examines 84 the value of field 17i (FIG. 1B) of the order to check if the market participant had specified the anti-internalization qualifier property for the order.”<sup>18</sup> “[I]nternalize execution manager 26c matches-off a participant’s agency or proprietary orders against that participant’s quotes/order before the order is sent for time/price priority execution in the quote/order collector facility 20. For example, if MMA sends system 20 all of its quotes/orders and is at the best bid of \$20 showing 4,000 shares (attributable and non-attributable), and the MMA sends OCF 25 a 1,000 share market sell order from one its customers, [process] 25 will examine 67a the identification of the order and if it matches the identification of the market participant who is at the best bid or offer for that security, the [process] 25 will execute 67b the order against the participant’s own quote, thus matching off the order on behalf of the participant.”<sup>19</sup>

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<sup>15</sup> Id., Page 3, Lines 25-28

<sup>16</sup> Id., Page 4, Lines 9-10

<sup>17</sup> Id., Page 5, Lines 19-27

<sup>18</sup> Id., Page 12, Lines 26-29

<sup>19</sup> Id., Page 11, Line 23 – Page 12, Line 5

Inventive features of claim 12 further include instructions for causing a computer to, for the order, match the order according to whether or not the market participant has qualified the order for avoidance of internalization execution. "If the anti-internalization qualifier property is set the order execution manager will by-pass calling the internalize execution manager 26c and instead will execute the order according to a specified priority, if any. If the anti-internalization qualifier property is not set the order execution manager will call 86 the internalize execution manager 26c."<sup>20</sup>

(6) Grounds of Rejection to be Reviewed on Appeal

1. Claims 1-14 and 17-19 stand rejected under 35 U.S.C. § 112, 2nd paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as his invention.

2. Claims 1-14, 17, and 18 stand provisionally rejected on the ground of non-statutory obviousness-type double patenting as being unpatentable over claims 1,3-14, and 16-20 of copending U.S. Patent Application No. 09/404,518, with corresponding U.S. Patent Application Publication No. 2002/0161687 ("Serkin").

3. Claims 1-3, 6-8, 11-14, and 17-19 stand rejected under U.S.C. § 102(b) as being anticipated by "Market Fragmentation," by Hans R. Stoll. Financial Markets Research Center Policy Paper No 00-11. Vanderbilt University. April 28, 2000. Current Version: September 5, 2000 ("Stoll").

4. Claims 1-14 and 17-19 stand rejected under U.S.C. § 102(b) as being anticipated by Serkin.

5. Claims 4, 5, 9, and 10 stand rejected under U.S.C. § 103(a) as being unpatentable over Stoll in view of U.S. Patent No. 6,618,707 ("Katz").

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<sup>20</sup> Id., Page 12, Line 29 – Page 13, Line 5

(7) Argument

Anticipation

"It is well settled that anticipation under 35 U.S.C. §102 requires the presence in a single reference of all of the elements of a claimed invention." *Ex parte Chopra*, 229 U.S.P.Q. 230, 231 (BPA&I 1985) and cases cited.

"Anticipation requires the presence in a single prior art disclosure of all elements of a claimed invention arranged as in the claim." *Connell v. Sears, Roebuck & Co.*, 220 U.S.P.Q. 193, 198 (Fed. Cir. 1983).

"This court has repeatedly stated that the defense of lack of novelty (i.e., 'anticipation') can only be established by a single prior art reference which discloses each and every element of the claimed invention." *Structural Rubber Prod. Co. v. Park Rubber Co.*, 223 U.S.P.Q. 1264, 1270 (Fed. Cir. 1984), citing five prior Federal Circuit decisions since 1983 including *Connell*.

In a later analogous case the Court of Appeals for the Federal Circuit again applied this rule in reversing a denial of a motion for judgment n.o.v. after a jury finding that claims were anticipated. *Jamesbury Corp. v. Litton Industrial Prod., Inc.*, 225 U.S.P.Q. 253 (Fed. Cir. 1985).

After quoting from *Connell*, "Anticipation requires the presence in a single prior art disclosure of all elements of a claimed invention arranged as in the claim," 225 U.S.P.Q. at 256, the court observed that the patentee accomplished a constant tight contact in a ball valve by a lip on the seal or ring which interferes with the placement of the ball. The lip protruded into the area where the ball will be placed and was thus deflected after the ball was assembled into the valve. Because of this constant pressure, the patented valve was described as providing a particularly good seal when regulating a low pressure stream. The court quoted with approval from a 1967 Court of Claims decision adopting the opinion of then Commissioner and later Judge Donald E. Lane:

[T]he term "engaging the ball" recited in claims 7 and 8 means that the lip contacts the ball with sufficient force to provide a fluid tight seal \*\*\*\* The Saunders flange or lip only sealingly engages the ball 1 on the upstream side when the fluid pressure forces the lip against the ball and never sealingly engages the ball on the downstream side because there is no fluid pressure there to force

the lip against the ball. The Saunders sealing ring provides a compression type of seal which depends upon the ball pressing into the material of the ring. \*\*\* The seal of Saunders depends primarily on the contact between the ball and the body of the sealing ring, and the flange or lip sealingly contacts the ball on the upstream side when the fluid pressure increases. 225 U.S.P.Q. at 258.

Relying on Jamesbury, the ITC said, "Anticipation requires looking at a reference, and comparing the disclosure of the reference with the claims of the patent in suit. A claimed device is anticipated if a single prior art reference discloses all the elements of the claimed invention as arranged in the claim." In re Certain Floppy Disk Drives and Components Thereof, 227 U.S.P.Q. 982, 985 (U.S. ITC 1985).

### Obviousness

"It is well established that the burden is on the PTO to establish a *prima facie* showing of obviousness, In re Fritsch, 972 F.2d. 1260, 23 U.S.P.Q.2d 1780 (C.C.P.A., 1972)."

In KSR International Co. v. Teleflex Inc., 550 U.S. \_\_\_, (2007), the Supreme Court reversed a decision by the Court of Appeal's for the Federal Circuit decision that reversed a summary judgment of obviousness on the ground that the district court had not adequately identified a motivation to combine two prior art references. The invention was a combination of a prior art repositionable gas pedal, with prior art electronic (rather than mechanical cable) gas pedal position sensing. The Court first rejected the "rigid" teaching suggestion motivation (TSM) requirement applied by the Federal Circuit, since the Court's obviousness decisions had all advocated a "flexible" and "functional" approach that cautioned against "granting a patent based on the combination of elements found in the prior art."

With respect to the genesis of the TSM requirement, the Court noted that although "As is clear from cases such as Adams<sup>21</sup>, a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. Although common sense directs one to look with care at a patent application that claims as innovation the combination of two known devices according to their established functions, it can

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<sup>21</sup> United States v. Adams, 383 U. S. 39, 40 (1966)

be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does. This is so because inventions in most, if not all, instances rely upon building blocks long since uncovered, and claimed discoveries almost of necessity will be combinations of what, in some sense, is already known."

In application of the TSM requirement, the Court cautioned that: "Helpful insights, however, need not become rigid and mandatory formulas; and when it is so applied, the TSM test is incompatible with our precedents."

"The mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification." *In re Gordon*, 221 U.S.P.Q. 1125, 1127 (Fed. Cir. 1984).

Although the Commissioner suggests that [the structure in the primary prior art reference] could readily be modified to form the [claimed] structure, "[t]he mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification." *In re Laskowski*, 10 U.S.P.Q. 2d 1397, 1398 (Fed. Cir. 1989).

"The claimed invention must be considered as a whole, and the question is whether there is something in the prior art as a whole to suggest the desirability, and thus the obviousness, of making the combination." *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick*, 221 U.S.P.Q. 481, 488 (Fed. Cir. 1984).

Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination. Under Section 103, teachings of references can be combined only if there is some suggestion or incentive to do so. *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984) (emphasis in original, footnotes omitted).

"The critical inquiry is whether 'there is something in the prior art as a whole to suggest the desirability, and thus the obviousness, of making the combination.'" *Fromson v. Advance Offset Plate, Inc.*, 225 U.S.P.Q. 26, 31 (Fed. Cir. 1985).

(1) Claims 1-14 and 17-19 are not indefinite under 35 U.S.C. § 112, 2<sup>nd</sup> Paragraph.

Claims 1, 7, and 12

The examiner contends that

Claims 1, 7 and 12 recite the limitations "electronic-based trading" and "product." Currently the claimed invention is not specific to securities trading and the trading of financial products (e.g., securities). Presently the claimed invention could be electronic trading, electronic auctions, e-shopping and similar electronic markets. Furthermore, the products traded could be any products or services.<sup>22</sup>

Appellant contends that the claims particularly point out and distinctly claim the subject matter that Appellant regards as their invention.

Appellant claims "A computer implemented method of processing an order in an electronic-based trading system, the method comprises ..." The examiner has not shown how or why this subject matter is indefinite. The examiner appears to question the breath of the claims without the benefit of any prior art reference. Claims are written to a person of skill in the art and it is incumbent upon the examiner to point out with particularity the alleged errors in the claim that would prevent that person from ascertaining the scope of the claims.

Clearly Appellant desires that these claims be limited to products and electronic based trading. The test for definiteness under 35 U.S.C. 112, second paragraph, is whether "those skilled in the art would understand what is claimed when the claim is read in light of the specification."<sup>23</sup> The examiner has not applied such a test to the claims. Rather, the examiner appears to use an indefiniteness rejection in an improper attempt to force Appellant to narrow the scope of the claims without any prior art reference requiring such a narrowing of claim scope. It is not the role of the claims to enable one skilled in the art to reproduce the invention, but rather to define the legal metes and bounds of the invention.<sup>24</sup>

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<sup>22</sup> Final Office Action, Mail Date 31 October 2007, Page 5

<sup>23</sup> Orthokinetics, Inc. v. Safety Travel Chairs, Inc., 806 F.2d 1565, 1576, 1 USPQ2d 1081, 1088 (Fed. Cir. 1986).

<sup>24</sup> In re Geofe, 526 F.2d 1393, 1397, 188 U.S.P.Q. 131, (CCPA, 1975).

Therefore, claims 1, 7, and 12 particularly point out and distinctly claim the subject matter which Appellant regard as their<sup>25</sup> invention.

Claims 1, 2, 6, 7, 8, 11, 12, 13, and 14

The examiner contends that:

[c]laims 1, 2, 6, 7, 8 ,11, 13, 14 recite the limitations "the best bid or best offer price" or "the best bid or best offer." There is insufficient antecedent basis for these limitations in the claims.<sup>26</sup>

and

[c]laims 1, 2, 6, 7, 8, 11, 13, 14 recite the limitations "best bid or best offer price" or "best bid or best offer." The meaning intended by Applicant for the terms are unclear. For purposes of claim interpretation, best bid or best offer is interpreted as the most suitable, useful or desirable bid or offer.<sup>27</sup>

Appellant contends that sufficient antecedent basis exists in claims 1, 2, 6, 7, 8, 11, 12, 13, and 14 for the phrase: "best bid or best offer price" because at any point in time there is but one best bid or best offer price as that term is known to one skilled in the art.

While the examiner may be suggesting that Appellant change "the" to "a" to introduce the feature of "a best bid/offer", Appellant contends that such a change, while part of normal claim drafting when dealing with non-unique items, in this instance would be confusing because there is but one "best" bid or one "best" offer price that is constantly changing. One of skill in this art would understand the phrase the "best bid / best offer." However, because there is but one, (depending on how that is defined in the trading system, e.g. a national best bid/best offer or a trading system best bid best offer) to instead recite "a best bid or a best offer" would infer that there were more than one, which would be confusing.

The examiner also contends that

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<sup>25</sup> 35 U.S.C. 112, second paragraph refers to the personal pronoun "his" not the definite article "the," as used by the examiner. For multiple inventors the plural personal pronoun "their" should be read into this section, not the definite pronoun "the."

<sup>26</sup> Final Office Action, Mail Date 31 October 2007, Page 5

<sup>27</sup> Id.

Claims 1, 2, 3, 6, 7, 8, 11, 12, 13, 14 recite the limitation "priority." The meaning intended by Applicant for the term is unclear. For purposes of claim interpretation, priority/prioritize is interpreted as- to arrange or deal with in order of importance.<sup>28</sup>

The meaning of priority is clear from its use in the claims and clearly the specification can be consulted by the examiner if the examiner is confused. Priority is directed to how the system ranks orders for execution, e.g., based on, e.g., price, time and size. In some implementations there are several potential priorities and the order determines the priority by which the order interacts with other trading interest in the system.

As described in Appellant's specification:

Referring to FIG. 1B, an entry screen 17 for non-directed order entry is shown. The screen 17 allows a participant to enter non-directed orders and would generally include fields 17a-17e for entering information including price, amount, and also three type fields. The type fields 17c-17e determine how the order interacts in the execution/routing manager 26d against Quoting Market Participant's contra-side quotes/orders. The type fields choose a priority, e.g., price/time box 17c; or price/size/time box 17d; or price/time that accounts for ECN access fees box 17e."<sup>29</sup>

Again, the examiner has not pointed out any inconsistencies or confusion in the claims and the specification is available to the examiner to assist in interpretation of the word "priority." Therefore, claims 1, 2, 3, 6, 7, 8, 11, 12, 13, and 14 are proper under 35 U.S.C. § 112, second paragraph.

## Claim 2

The examiner questions:

Claim 2 recites "matching-off the order without regard to a priority of other quotes in the system". Since claim 3 depends from claim 2, doesn't "without regard to priority" already encompass "without regard to time priority."?<sup>30</sup>

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<sup>28</sup> Id.

<sup>29</sup> Specification, Page 5, Line 23 – Page 6, Line 2.

<sup>30</sup> Final Office Action, Mail Date 31 October 2007, Page 6

Claim 2 limits claim 1, and covers the situation when a market participant has not qualified the order for avoidance of an internalization execution. In that instance, "matching-off" of the order occurs against the quote of the matching market participant without regard to a priority of other quotes in the electronic-based trading system.

Claims 2 and 13

The examiner questions:

Regarding the "best bid or best offer that is at the opposite side of the market" in claims 2 and 13, is that the same as the best bid or best offer price on the opposite side of the market since other grounds for giving other quotes "priority" (e.g., time) are not considered?<sup>31</sup>

Appellant responds that for a given market at a given time, e.g., a market in securities such as stocks, there is a bid price that is the highest price that a market maker or specialist would buy a security and an offer price or the lowest that the market maker or specialist would sell the security. So, there indeed exists a best bid/best offer price. However, in a system, there may be many quotes, orders at the best bid and best offer prices, but generally only one of the quotes or orders will be the either oldest and of largest size or of largest size and oldest (depending on the priority scheme employed). A similar situation holds for offers.

Claim 8

The examiner questions:

Regarding the "best bid or best offer" in claim 8, is this best bid or best offer a function of price and time on the opposite side of the market since other grounds for giving other quotes "priority" are not considered?<sup>32</sup>

Appellant responds by referring the examiner to the explanation supra.

The examiner rejected claims 2-6, 8-11, 13, and 14 under 35 U.S.C. § 112, second paragraph on the same rationale as the claims from which they depend. For the same reasons as explained above, Appellant requests that the rejection of claims 1-14, and 17-19 be withdrawn.<sup>33</sup>

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<sup>31</sup> Id.

<sup>32</sup> Id.

(2) Claims 1, 7, and 12 are not incomplete under 35 U.S.C. § 112, 2<sup>nd</sup> Paragraph.

The examiner contends that

A best bid or best offer is achieved after performing a step of prioritizing or ranking based on some condition or conditions (e.g., price). This step is missing from the claimed invention.<sup>34</sup>

Claims 1, 7, and 12 recite “...internalization execution corresponds to execution of an order if the market participant identification associated the order matches a market participant identification representing a quote in the system that is at the best bid or best offer price in the system regardless of the priority of that quote in the system...” [Emphasis added] The emphasized phrase requires that a priority exists in the market, upon which to base the best bid or the best offer. A positive step of establishing a priority however is not needed to distinguish these claims over the prior art and indeed if recited could prevent direct infringement of these claims by a single actor. A requirement of a priority existing in the system is not missing from claims 1, 7, and 12, but the action of establishing that priority is neither necessary to an understanding of the invention nor needed to distinguish over the prior art.

The examiner further contends that “Applicant is using conditional language but, has not accounted for what happens for all conditions.”<sup>35</sup> Claims 1, 7 and 12 recite: “...checking the order in a computer to determine if a market participant has qualified the order for avoidance of an internalization execution for the order in the electronic-based trading system...”. Appellant contends that claims 1, 7, and 12 are “complete” in that the claims distinguish over the cited art.

The claims do not need to present a consequence of an alternative state of the claimed condition in order to clearly state the invention. That is, the novelty of Appellant’s invention lies with what follows if a market participant has qualified the order for avoidance of an internalization execution for the order in the electronic-based trading system. What happens if

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<sup>33</sup> The examiner failed to mention claims 17-19 explicitly in this rejection. Appellant assumes that claims 17-19 are included in the rejection, as they depend from rejected independent claims.

<sup>34</sup> Final Office Action, Mail Date 31 October 2007, Page 7

<sup>35</sup> Id.

the market participant has not qualified the order for avoidance of an internalization execution for the order is not needed to distinguish Appellant's invention over the prior art.

The examiner questions:

How the pool of bids or offers (i.e., serving as the basis for determining the best bid or best offer price) entered the system is unclear. Are they bids or offers obtained from other systems? Are they bids or offers entered in the claimed system. Is the pool national, system specific?<sup>36</sup>

Appellant responds that Appellant has not recited "pools." Accordingly, Appellant is unable to respond to this comment. The bids or offers may be either national or system specific.

The examiner further questions:

How are the orders satisfied? Would the order be satisfied in the same way if the order is qualified and if the order is not qualified? If not, what is the difference? How are the orders matched? Would the order be matched in the same way if the order is qualified and if the order is not qualified? If not, what is the difference? What is the difference between "satisfying" in claim 1 and "matching" in claims 7 and 12.<sup>37</sup>

The meaning of "satisfying" an order in claim 1 is known in the art and is contained in the specification:

The system 20 has a default, e.g., a strict price/time priority. If a market participant does not override the default or selects price/time 94, (FIG. 6A) a Non-Directed Order would be executed 96 first against all displayed quotes/order of market makers, ECNs, and non-attributable agency orders of UTP Exchanges, in time priority between such interest. If the order is not satisfied 98 at that level of priority the order will execute 100 against the reserve size of market makers and ECNs in time priority between such interest. If the order still is not satisfied 102, (FIG. 6B) the order will execute 104 against principal quotes of UTP Exchanges, in time priority between such interest.<sup>38</sup>

The meaning of "matching off" and order in claims 7 and 12 is known in the art and is contained in the specification:

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<sup>36</sup> Id.

<sup>37</sup> Id.

<sup>38</sup> Specification, Page 13, Lines 14-25.

...if MMA {Market Maker} sends system 20 all of its quotes/orders and is at the best bid of \$20 showing 4,000 shares (attributable and non-attributable), and the MMA sends OCF [Order Collector Facility] 25 a 1,000 share market sell order from one its customers, OCP [Order Collector Process] 25 will examine 67a the identification of the order and if it matches the identification of the market participant who is at the best bid or offer for that security, the OCP 25 will execute 67b the order against the participant's own quote, thus matching off the order on behalf of the participant.”<sup>39</sup>

Claims 1, 7 and 12 neither omit essential elements nor omit essential steps. It is not the role of the claims to enable one skilled in the art to reproduce the invention, but rather to define the legal metes and bounds of the invention.<sup>40</sup> This has been attained by Appellant's claims and Appellant therefore requests that the rejection of claims 1, 7, and 12 be reversed.

The examiner rejected claims 2-6, 8-11, 13, and 14 under 35 U.S.C. § 112, second paragraph on the same rationale as the claims from which they depend. For the same reasons as explained above, Appellant requests that the rejection of claims 2-6, 8-11, 13, and 14 be withdrawn.

(3) Claims 1-14 and 17-19 are not obvious on the ground of non-statutory obviousness-type double patenting over Serkin.

The examiner contends that

[c]laims 1-14 and 17-18 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1,3-14 and 16-20 of copending Application No. 09/404,518. Although the conflicting claims are not identical, they are not patentably distinct from each other because both applications are drawn to:

Executing an order in a market system comprising:

receiving an order from a market participant; and matching-off off the order against the best bid or best offer that is at the opposite side of the market.<sup>41</sup>

Appellant contends that the claims in Serkin do not recite “...checking the order in a computer to determine if a market participant has qualified the order for avoidance of an

<sup>39</sup> Id., Page 11, Line 27 – Page 12, Line 5.

<sup>40</sup> See Ref. 24.

<sup>41</sup> Final Office Action, Mail Date 31 October 2007, Page 8

internalization execution for the order in the electronic-based trading system, where internalization execution corresponds to execution of an order if the market participant identification associated the order matches a market participant identification representing a quote in the system that is at the best bid or best offer price in the system regardless of the priority of that quote in the system..." [Emphasis added], as required by claims 1-14, 17, and 18.

Rather, claim 1 of Serkin recites: "...checking if a market participant identification associated with the order from the customer matches a market participant identification representing a quote in the system which is at a best bid or best offer price in the system; and if the market participant identification matches the market participant identification representing a best bid or offer quote in the system..."

The examiner has not shown therefore that the claims are an obvious variant of Serkin and therefore, this rejection is improper and should be reversed.

(4) Claims 1-3, 6-8, 11-14 and 17-19 are not anticipated by Stoll.

Claims 1-3, 6-8, 11-14 and 17-19 stand or fall together. The examiner contends that Stoll discloses, in particular:

Re Claims 1-6 and 17: ...[C]hecking the order in a computer to determine if a market participant has qualified the order for avoidance of an internalization execution for the order in the electronic-based trading system, where internalization execution corresponds to execution of an order if the market participant identification associated with the order matches a market participant identification representing a quote in the system that is at the best bid or best offer price in the system regardless of the priority of that quote in the system (Stoll, pgs. 1-13, particularly pgs. 4-11)...<sup>42</sup>

Appellant points out to the Board that Stoll is 13 pages long, including title, abstract, and endnotes, leaving pages 4-11 as the entire body. The examiner however improperly fails to point out any specific passage in Stoll that reads on the features of claim 1. Appellant notes that, in the Advisory Action of February 11, 2008, in response to the Reply to the Final Office Action of

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<sup>42</sup> Id., Page 10

October 31, 2007, the examiner has merely responded to Appellant's arguments as "merely rehashing", without explaining what "rehashing" means.

Appellant contends that this rejection is procedurally improper.

37 C.F.R. § 1.104 states:

The applicant, or in the case of a reexamination proceeding, both the patent owner and the requester, will be notified of the examiner's action. The reasons for any adverse action or any objection or requirement will be stated in an Office action and such information or references will be given as may be useful in aiding the applicant, or in the case of a reexamination proceeding the patent owner, to judge the propriety of continuing the prosecution.<sup>43</sup>

In rejecting claims for want of novelty or for obviousness, the examiner must cite the best references at his or her command. When a reference is complex or shows or describes inventions other than that claimed by the applicant, the particular part relied on must be designated as nearly as practicable. The pertinence of each reference, if not apparent, must be clearly explained and each rejected claim specified.<sup>44</sup>

Further:

The process of patent examination is an interactive one ... The examiner cannot sit mum, leaving the applicant to shoot arrows into the dark hoping to somehow hit a secret objection harbored by the examiner. The 'prima facie case' notion, the exact origin of which appears obscure ..., seemingly was intended to leave no doubt among examiners that they must state clearly and specifically any objections (the prima facie case) to patentability, and give the applicant fair opportunity to meet those objections with evidence and argument. To that extent the concept serves to level the playing field and reduces the likelihood of administrative arbitrariness.<sup>45</sup>

Moreover, according to the United States Court of Appeals, Federal Circuit: "[35 U.S.C. § 132] is violated when a rejection is so uninformative that it prevents the applicant from recognizing and seeking to counter the grounds for rejection."<sup>46</sup>

<sup>43</sup> 37 C.F.R. § 1.104(a)(2), emphasis added

<sup>44</sup> 37 C.F.R. § 1.104(c)(2), emphasis added

<sup>45</sup> In re Oetiker, 977 F.2d 1443, 1449 (Fed. Cir. 1992).

<sup>46</sup> Chester v. Miller, 906 F.2d 1574, 1578 (Fed. Cir. 1990)

Claim 1

Stoll neither describes nor suggests at least "...checking [an] order in a computer to determine if a market participant has qualified the order for avoidance of an internalization execution for the order in the electronic-based trading system, where internalization execution corresponds to execution of an order if the market participant identification associated with the order matches a market participant identification representing a quote in the system that is at the best bid or best offer price in the system regardless of the priority of that quote in the system..."

Rather, Stoll states:

Brokers that internalize or preference order flow achieve best price by agreeing to send the order to a market maker that promises to match the best price when the order is presented. In other words, a market maker may never post the best price and yet receive designated order flow.

Excessive preferencing or internalization can harm markets. If all order flow were preferenced or internalized, no market maker would have an incentive to narrow the spread to attract orders because a better price would simply be matched by other market makers and would fail to attract additional orders.<sup>47</sup>

While Stoll mentions the concept of internalization, and possible consequences for markets, Stoll neither describes nor suggests "...checking [an] order in a computer to determine if a market participant has qualified the order for avoidance of an internalization execution ...," as recited in claim 1. In fact, Stoll describes a different solution to the problem of excessive internalization:

A middle ground between matching the best price and strict price-time priority is a requirement to route orders to the market posting the best price.<sup>48</sup>

Therefore, Stoll in fact teaches away from the cited features of claim 1.

Claim 6

Stoll neither describes nor suggests at least the feature of "...matching the order to a order of a market participant that has the one of the best bid or best offer that is at the opposite

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<sup>47</sup> Stoll, Page 6, Lines 2-10.

<sup>48</sup> Id., Page 7, Lines 1-2

side of a market for the product... if a market participant has qualified the order for avoidance of an internalization execution."

Rather, Stoll states in the passage quoted above that orders should be required to be routed to the market posting the best price. This again teaches away from the feature in claim 6 that matches an order (as opposed to routing of the order to another market) with that of a market participant that has the one of the best bid or best offer that is at the opposite side of a market for the product.

Claims 2, 3, 7, 8, 11-14, and 17-19

Claims 7 and 12 are independent and recite similar features to that recited in claim 1. Claims 11 and 14 recite a similar feature to that recited in claim 6. Claims 2 and 3 depend from claim 1. Claim 8 depends from claim 7. Claim 17 depends from claim 6. Claims 13, 18 and 19 depend from claim 11. Therefore, claims 1-3, 6-8, 11-14 and 17-19 are not anticipated under 35 U.S.C. § 102(b) by Stoll.

(5) Claims 1-14 and 17-19 are not anticipated by Serkin.

Claims 1-14 and 17-19 stand or fall together. The examiner contends that Serkin discloses, in particular:

Re Claims 1-6 and 17: ...[C]hecking the order in a computer to determine if a market participant has qualified the order for avoidance of an internalization execution for the order in the electronic-based trading system, where internalization execution corresponds to execution of an order if the market participant identification associated with the order matches a market participant identification representing a quote in the system that is at the best bid or best offer price in the system regardless of the priority of that quote in the system (Serkin, Figs. 1-9; abstract; [0001] - [0090]) ...<sup>49</sup>

Again, the examiner has merely cited the entire specification of Serkin sans the claims, and the comments from the beginning of Subsection (4) above apply here as well.

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<sup>49</sup> Final Office Action, Mail Date 31 October 2007, Page 12

Claim 1

Serkin neither describes nor suggests "...checking [an] order in a computer to determine if a market participant has qualified the order for avoidance of an internalization execution for the order in the electronic-based trading system, where internalization execution corresponds to execution of an order if the market participant identification associated with the order matches a market participant identification representing a quote in the system that is at the best bid or best offer price in the system regardless of the priority of that quote in the system..."

Nowhere in the specification of Serkin does Serkin describe or suggest "...checking the order in a computer to determine if a market participant has qualified the order for avoidance of an internalization execution for the order in the electronic-based trading system,...," as recited in claim 1.

Claim 6

Serkin neither describes nor suggests "...matching the order to a order of a market participant that has the one of the best bid or best offer that is at the opposite side of a market for the product... if a market participant has qualified the order for avoidance of an internalization execution."

Nowhere in the specification of Serkin does Serkin describe or suggest recited in claim 6 quoted supra.

Claims 2, 3, 7, 8, 11-14, and 17-19

Claims 7 and 12 are independent and recite similar features to that recited in claim 1. Claims 11 and 14 recite a similar feature to that recited in claim 6. Claims 2 and 3 depend from claim 1. Claim 8 depends from claim 7. Claim 17 depends from claim 6. Claims 13, 18 and 19 depend from claim 11. Therefore, claims 1-3, 6-8, 11-14 and 17-19 are not anticipated under 35 U.S.C. § 102(e) by Serkin.

(6) Claims 4, 5, 9, and 10 are allowable over Stoll in view of Katz.

The base claims are patentable over Stoll as was argued above and Katz fails to cure the deficiencies of Stoll. That is, Katz neither describes nor suggests at least "...checking [an] order in a computer to determine if a market participant has qualified the order for avoidance of an internalization execution for the order in the electronic-based trading system, ..." .

In addition, claim 4, which is directed to "... calling a cancel request to cancel a quote at the side of the market in which a matched off order will be executed." and claim 5, which is directed to "... calling a cancel request prior to matching off the order to cancel a quote at the side of the market at which an matched off order will be executed." are neither described nor suggested by Katz.

Rather, Katz states:

According to one embodiment of the invention, there are three instances where an incoming limit order that cannot trade is not stored in the book memory 33. First, a limit order may contain special instructions that it should not be stored in the book memory 33. For example, if a limit order is designated as a fill-or-kill order, the order process 25 will delete the incoming order unless the entire size of the order can be traded against the orders and quotations in the book memory 33. Second, if a limit order is designated as an immediate-or-cancel order, the order process 25 will delete any portion of the incoming order that cannot trade against the orders and quotations in the book memory 33. Finally, according to this embodiment, a professional limit order that cannot trade at a price that is within two trading increments below the best bid or above the best offer is deleted by the order process 25, that is, no portion of the professional limit order is traded.<sup>50</sup>

Katz does not describe "a cancel request to cancel a quote at the side of the market in which a matched off order will be executed." Katz, while clearly mentioning deleting an order does not call "a cancel request to delete the order as a result of a match off. Rather, Katz has limit orders with conditions such as fill or kill and the process automatically deletes the order if the conditions are not fulfilled. Therefore, claims 4, 5, 9, and 10 are patentable under 35 U.S.C. § 103(a) over Stoll in view of Katz.

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<sup>50</sup> Katz, Column 10, Lines 40-58.

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### Conclusion

Therefore, the Examiner erred in rejecting Appellant's claims and should be reversed.

Respectfully submitted,

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### Appendix of Claims

1. A computer implemented method of processing an order in an electronic-based trading system, the method comprises:

receiving an order to buy or sell a product, the order having a market participant identification; for the order,

checking the order in a computer to determine if a market participant has qualified the order for avoidance of an internalization execution for the order in the electronic-based trading system, where internalization execution corresponds to execution of an order if the market participant identification associated the order matches a market participant identification representing a quote in the system that is at the best bid or best offer price in the system regardless of the priority of that quote in the system. and

satisfying the order according to whether or not the market participant has qualified the order for avoidance of internalization execution.

2. The method of claim 1 wherein if a market participant has not qualified the order for avoidance of an internalization execution, the method further comprises:

checking if a market participant identification associated with the order matches a market participant identification representing a quote in the electronic-based trading system which is at the best bid or best offer price in the electronic-based trading system; and if there is a match,

matching-off the order against the quote of the matching market participant without regard to a priority of other quotes in the electronic-based trading system, against the one of the best bid or best offer that is at the opposite side of a market for a product specified by the order.

3. The method of claim 2, wherein the priority is price-time and the method further comprises:

matching-off the order without regard to a time priority of other quotes in the electronic-based trading system.

4. The method of claim 2 further comprising:

calling a cancel request to cancel a quote at the side of the market in which a matched off order will be executed.

5. The method of claim 2 further comprising:

calling a cancel request prior to matching off the order to cancel a quote at the side of the market at which an matched off order will be executed.

6. The method of claim 1 wherein if a market participant has qualified the order for avoidance of an internalization execution, the method further comprises:

matching the order to a order of a market participant that has the one of the best bid or best offer that is at the opposite side of a market for the product.

7. A networked computer system for providing an electronic-based market system comprises:

one or more networked computers to

receive orders and match orders against quotes posted in the system on a time priority basis;

check if a market participant identification associated with a received order matches a market participant identification representing a quote in the system that is at the best bid or best offer price in the system; and

check if the market participant has qualified the order for avoidance of the internalization execution for the order in the market system where internalization execution corresponds to execution of an order where the market participant identification associated with the order matches a market participant identification representing a quote in the system that is at the best bid or best offer price in the system regardless of the priority of that quote in the system; and

match the order with quotes in the system according to whether the order is qualified for avoidance of the internalization execution.

8. The system of claim 7 wherein if a market participant has not qualified the order for avoidance of an internalization execution, the system:

checks if a market participant identification associated with the order matches a market participant identification representing a quote in the system which is at the best bid or best offer price in the system; and if there is a match,

matches-off the order against the quote of the matching market participant without regard to a priority of other quotes in the system, against the one of the best bid or best offer that is at the opposite side of a market for a product specified by the order.

9. The system of claim 7 wherein the system calls a cancel request to cancel a quote at the side of the market in which a matched off order will be executed.

10. The system of claim 8 wherein the system calls a cancel request prior to matching off the order to cancel a quote at the side of the market at which an matched off order will be executed.

11. The system of claim 7 wherein if a market participant has qualified the order for avoidance of an internalization execution, the system matches the order to a order of a market participant that has the one of the best bid or best offer that is at the opposite side of the market.

12. A computer program product residing on a computer readable medium for operating an electronic based trading system comprises instructions for causing a computer to:  
receive an order from a market participant's customer; and for the order,  
check if a market participant has qualified the order for avoidance of an internalization execution in the electronic based trading system where internalization execution corresponds to execution of an order if the market participant identification associated the order matches a market participant identification representing a quote in the system that is at the best bid or best offer price in the system regardless of the priority of that quote in the system;  
match the order according to whether or not the market participant has qualified the order for avoidance of internalization execution.

13. The computer program of claim 12 further comprises instructions to:  
check if a market participant identification associated with the order matches a market participant identification representing a quote in the system which is at the best bid or best offer price in the system, if a market participant has not qualified the order for avoidance of an internalization execution; and if there is a match,  
match-off the order against the quote of the matching market participant without regard to a priority of other quotes in the system, against the one of the best bid or best offer that is at the opposite side of a market for a product specified by the order.

14. The computer program product of claim 12 further comprises instructions to:  
match the order to a order of a market participant that has the one of the best bid or best offer that is at the opposite side of the market if a market participant has qualified the order for avoidance of an internalization execution.

15-16 (Canceled)

17. The method of claim 6 wherein matching the order occurs based on a priority specified by the order.

18. The system of claim 11 wherein the system matches the order based on a priority specified by the order.

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19. The computer program product of claim 11 wherein the instructions cause the computer to match the order based on a priority specified by the order.

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Evidence Appendix

NONE

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Related Proceedings Appendix

NONE